

REMARKS/ARGUMENTS

Claims 1 - 66 appear in this application, with Claims 1, 26, 28, 31-33, 47, 48, 59, 61 and 64-66, having been amended, Claim 67 canceled and Claims 37-46 being held withdrawn.

In the Action, claims 1-9, 25-36, 47-52 and 61-66 were rejected under 35 USC § 103(a) as being unpatentable over Owensby et al. (US Pat. No. 5,484,375) in view of Cicha et al. (US Pat. No. 5,857,309). Applicants respectfully traverse this rejection.

The invention of the elected claims in this application is directed to apparatus and a method for attaching respective tube segments of a series of tube segments to respective ones of a series of flexible bags by fusing them together to form a series of sterilized flexible packages and filling the series of flexible packages with a product in an aseptic form, fill and seal operation. The series of flexible bags are formed of a web of film and are releasably interconnected to one another, with each of the series of flexible bags comprising wall portions defining a hollow interior space and a pair of opposing peripheral edge portions confronting each other to define an interface space in communication with the hollow interior space. Each of the tube segments is an elongated member having an opposed pair of ends, a passageway interconnecting the ends and an exterior surface. One of the ends of each of the tube segments is open and the other of the ends is closed.

As amended, Claim 1 is directed to the apparatus and basically comprises a sterile processing chamber, a tube inserter, at least one fusing member for fusing respective tube segments to the respective bags to form a series of sterilized packages and means for filling those packages with a product. In particular, Claim 1 specifies that the sterile processing chamber is adapted to receive the series of sterilized tube segments and the series of flexible bags to sterilize the series of flexible bags. The tube inserter is specified as at least being partially located within the processing chamber and arranged to grip respective ones of the series of sterilized tube segments and to place the respective ones of the sterilized tube segments between the opposing sterilized peripheral edge portions of respective ones of the flexible bags in the sterile processing chamber. The at least one member for fusing is now specified as fusing a portion of the exterior surface of each respective one of the sterilized tube segments between the opposing sterilized peripheral edge portions of the respective ones of the sterilized flexible bags so that the open end of a respective one of the tube segments is in communication with the interior space in a respective one of the sterilized flexible bags and the closed end of each of a respective one of the sterilized tube segments is located outside of a respective one of the sterilized flexible bags. The foregoing combined features of the apparatus as set forth in amended Claim 1 are not shown nor suggested by the cited prior art and hence it is respectfully submitted that Claim 1 is allowable.

In this regard, it is clear that U.S. Patent 5,484,375 to Owensby et al. does not disclose apparatus for forming a series of sterilized flexible packages from a web made up of a series of releasably interconnected flexible bags, securing sterilized tube segments to respective ones of the bags and then filling the bags with a product in an aseptic environment. Rather, Owensby et al. merely discloses the formation of flexible packages having fitments. To that end, Owensby et al. uses an indexing table which supports respective ones of cut pouches so that respective tubular fitments can be secured to the pouches. The fitments are open at both ends. In contradistinction, the packages made by the apparatus of Claim 1 make use of tube segments that are closed at one end and open at the other end. This is of considerable importance to ensure that when the packages are filled and sealed in the apparatus, aseptic conditions are maintained, i.e., the product contents in the interior of the package remain sterile. There is no teaching in Owensby et al. of utilizing a processing chamber for sterilizing the series of flexible bags and for accepting sterilized tube segments that are open at one end and closed at the other end to secure the open end portion of the respective segments between opposed sterilized peripheral edge portions of the bags in the processing chamber.

To make up for the deficiencies of Owensby et al. as a viable reference the PTO concludes that it would be obvious to utilize a sterile processing chamber as taught by U.S. Patent 5,857,309 (Cicha et al.). Reference to Cicha et al. is respectfully submitted to be misplaced inasmuch as it fails to disclose or suggest an

integrated apparatus that produces the sterilized packages and fills them as presently being claimed. Thus, even if it were obvious to modify the apparatus of Owensby et al. in accordance with the teachings of Cicha et al. one would still not have the apparatus now being claimed in amended Claim 1.

Claims 2 - 36 depend directly or indirectly from Claim 1 and are hence patentable for reasons similar thereto.

Claim 47 is an independent claim directed to the method of attaching respective tube segments of a series of tube segments to respective ones of a series of flexible bags by fusing them together to form a series of sterilized flexible packages and filling the series of flexible packages with a product in an aseptic form, fill and seal operation. This claim has been amended in a manner consistent with the amendment to apparatus Claim 1. Hence for the same basic reasoning as given with respect to Claim 1, it is respectfully submitted that Claim 47 is allowable over the art of record.

Claims 48 - 66 depend directly or indirectly from Claim 47 and are hence patentable for reasons similar thereto.

Claims 37 - 46 stand withdrawn and will be canceled from this application and filed as a divisional application upon an indication of allowability of the remaining claims in this application.

For at least the reasons set forth above, it is respectfully submitted that the above-identified application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are respectfully requested.

Should the Examiner believe that anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

Pritchard et al.

By___/Randolph J. Huis/___
Randolph J. Huis
Registration No. 34,626
(215) 568-6400

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103